





Patients with cardiovascular disease less likely to use antidiabetic drugs, finds study


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bmjmedicine  | Second line antihyperglycaemic drug initiation across cardiovascular risk groups
Visual abstract

Summary  Despite the increase in overall uptake of cardioprotective antihyperglycaemic drugs as second line treatment for type 2 diabetes, their uptake was lower in patients with cardiovascular disease (CVD) over the past decade

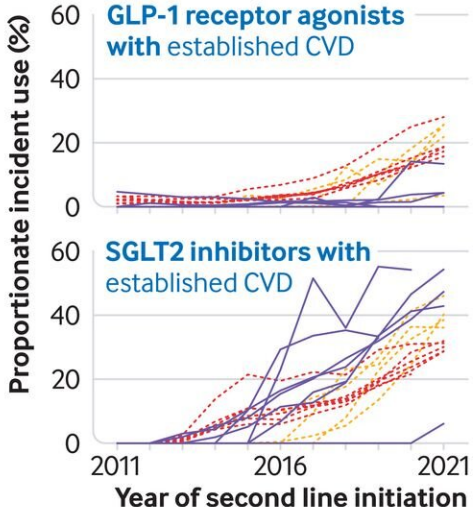
Study design  Pharmacoepidemiological | 17 administrative claims and electronic health record databases (2011-21) from eight countries

Population  **4.8 million participants** with type 2 diabetes
Prior metformin monotherapy and initiated second line treatments
Age: ≥ 18 years

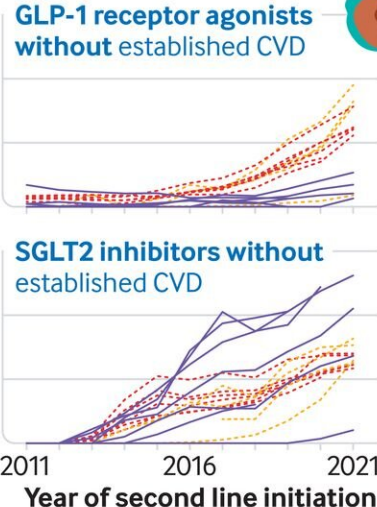


Outcomes  - - - US national - - - US health system — Non-US

GLP-1 receptor agonists with established CVD

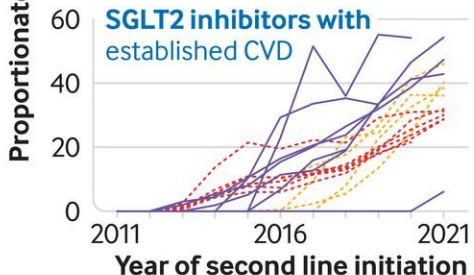


GLP-1 receptor agonists without established CVD

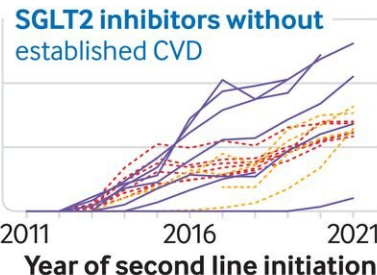


US patterns of measurable increase in use do not translate to other countries

SGLT2 inhibitors with established CVD




SGLT2 inhibitors without established CVD



Large uptake in Europe and Hong Kong during period of relatively limited use in US

Year of second line initiation

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Credit: *BMJ Medicine* (2023). DOI: 10.1136/bmjmed-2023-000651.
<https://bmjmedicine.bmj.com/content/2/1/e000651>

The use of cardioprotective antidiabetic drugs, including GLP-1 agonists like Ozempic, is on the rise. While these medications can help protect against cardiovascular disease (CVD), [a new study](#) published in *BMJ Medicine* finds uptake is lower among patients with CVD.

A team led by Yale School of Medicine's Rohan Khera, MD, reviewed data from 4.6 million patients in five countries between 2011 and 2021. They found uptake of cardioprotective antihyperglycemic drugs—including glucagon-like peptide-1 receptor agonists and sodium-glucose cotransporter-2 inhibitors—increased over the 10-year study period, but the increase was larger among populations with no [cardiovascular disease](#) compared to patients with established CVD.

The researchers say a new strategy is needed to make sure lifesaving treatments are reaching the populations who need them most. "Aligning medication use with [guideline recommendations](#) is critical to improve outcomes for patients with type 2 diabetes," Dr. Khera says. "We believe our approach can serve as a benchmark for monitoring the uptake of antihyperglycemic drugs in response to changes in regional guidelines, [insurance coverage](#), and contemporary evidence."

More information: Rohan Khera et al, Multinational patterns of second line antihyperglycaemic drug initiation across cardiovascular risk groups: federated pharmacoepidemiological evaluation in LEGEND-T2DM, *BMJ Medicine* (2023). DOI: [10.1136/bmjmed-2023-000651](https://doi.org/10.1136/bmjmed-2023-000651). bmjmedicine.bmj.com/content/2/1/e000651

Provided by Yale School of Medicine

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